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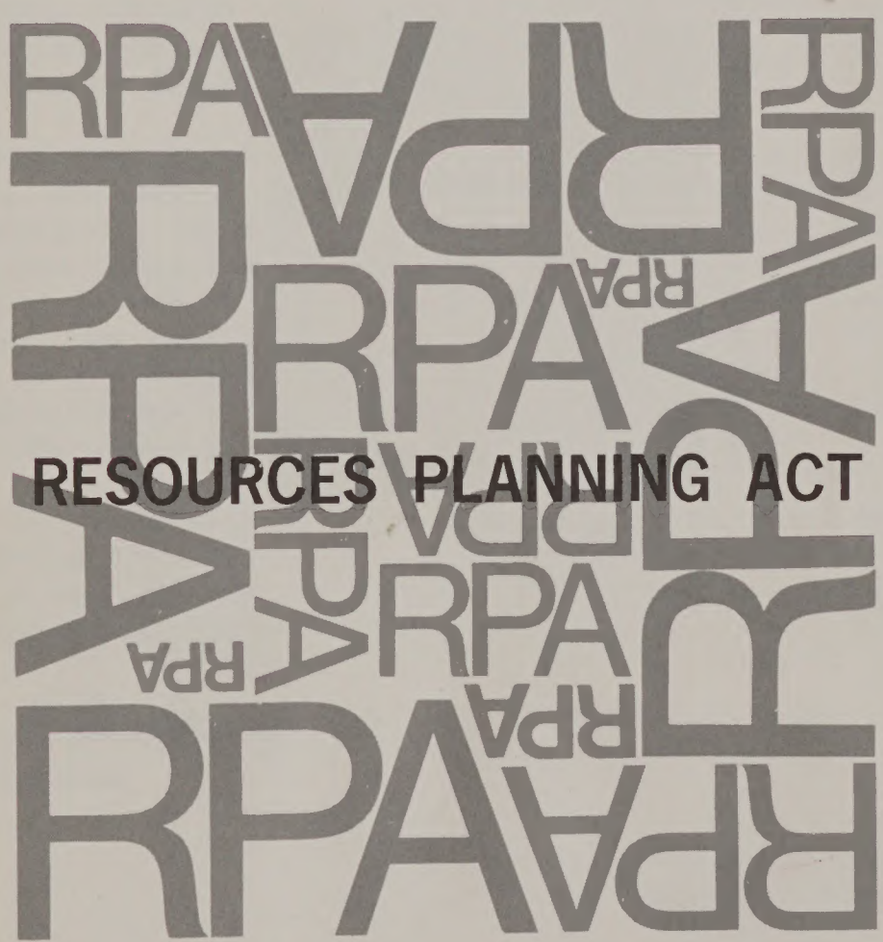
OUTLINE

The Forest and Rangeland Renewable Resources Planning Act of 1974

Outline of Forest Service Plans for Implementing the Act



Forest Service U.S. Department of Agriculture February 1975

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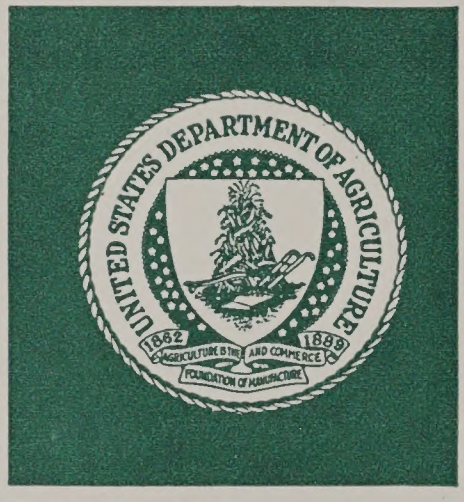

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UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

January 21, 1975

To Our Readers:

The enclosed material is intended primarily to give you an opportunity to follow the work of the Forest Service as it carries out significant new resources legislation - the Forest and Rangeland Renewable Resources Planning Act of 1974. To do this, we are sharing with you the basic outlines of the Renewable Resources Assessment and Program documents. They will be used as blueprints in gathering the data and preparing recommendations required by the Resources Planning Act. The Act requires that these documents be submitted to Congress by December 31, 1975.

The outlines are intended only to explain the process we will be following, and not to convey any substantive conclusions or recommendations. We would appreciate receiving your reactions to the outlines in guiding us in our approach. The outlines are preliminary in nature and are subject to change as we receive your reactions. One note of caution: the descriptions of analyses included in the Program outline are illustrative only. They should not be interpreted as indicative of any choices with respect to Program priorities or emphasis.

This is the first of several steps where your suggestions can help us in meeting the requirements of the Resources Planning Act. The time is short, yet we welcome your recommendations now, and please don't hesitate to contact us as we go along.

John R. McGuire

JOHN R. McGUIRE
Chief

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INTRODUCTION

Background

The Forest and Rangeland Renewable Resources Planning Act of 1974 (PL 93-378) was enacted in August 1974. The law, known as the Resources Planning Act (RPA), calls for long-range planning by the Forest Service, U.S. Department of Agriculture, to insure that the United States has an adequate supply of forest resources in the future while maintaining the quality of the environment. The law has two major requirements. The Forest Service must periodically submit to Congress both a Renewable Resource Assessment and a long-range Renewable Resource Program. The first transmittal of both of these documents is to occur on December 31, 1975.

In addition to the Assessment and Program Documents required by the Resources Planning Act, the Forest Service plans to prepare a Summary Report that will abstract significant parts of both documents. A primary concern in preparation of all these documents is that the public be involved at the early stages. The Forest Service wishes to tell all interested groups, organizations, and individuals how the Agency intends to implement the Resources Planning Act.

The Forest Service has prepared this information package of outline materials showing the proposed scope and direction, and planned content of the Summary Report, Assessment, and Program Documents. The Agency welcomes public comment on these outlines.

Environmental Program for the Future (EPFF)--Its Relationship to the Resources Program

The package also contains a summary analysis of public responses to the Environmental Program for the Future (EPFF). The complete report, entitled "Public Comments on EPFF," will be published in late February. A copy of this report will be mailed to all respondents and will be made available to others on request. Copies will also be available for review at Forest Service offices.

The EPFF was a draft long-term forestry plan issued by the Forest Service in August 1974 prior to enactment of the Resources Planning Act. It was the result of a 3-year Forest Service planning effort. The EPFF provided an overview of forestry issues in the United States and illustrated the various forestry products and services which could be expected from three alternative levels of management for 6 resource systems and 18 research activities.

The public was asked to comment on the alternative levels of activities. Over 23,000 pages of public comments on the EPFF were received and analyzed by the Forest Service. The original plan to revise the EPFF has been superseded by the requirements of the Resources Planning Act. However, the draft EPFF document and the public response to it will both be used as a basis for development of the Renewable Resources Program. The resource systems approach used in the EPFF will be used for both the Assessment and Program Documents.

Additional Public Review Opportunities

Additional opportunities for public review and comment will be provided during the development of the Assessment and Program Documents. In early March, alternative goals for the six resource systems will be presented. Public comment will be sought at that time on the adequacy of the goal statements. The Forest Service will also welcome suggestions for goals which might be deleted or added.

Drafts of the complete Assessment and Program Documents will be available for public comment in August. The draft program will include analyses on environmental impacts of alternative policies and programs. The Program Document, with these analyses, will be presented to the Council on Environmental Quality as a Draft Environmental Impact Statement.

The final documents will be presented to Congress on December 31, 1975, at which time they will also be available to the public.

Public review periods are by necessity compressed because of the short time allowed by the Resources Planning Act for the initial submission of the Assessment and the Program to Congress. However, the Requirements of the Resources Planning Act provide for a continuing process of review and submission of Assessment and Program documents. There will be ample opportunity for additional public comment, both in Congressional review of the initial submission, through review of the next submission to Congress in 1979, and others thereafter.

Submission of Comments

To be most useful to the Forest Service Resources Planning Act Team, comments on the enclosed outlines should be submitted by March 3 to: Resources Planning Act Team, Forest Service, Room S-159, South Building, U. S. Department of Agriculture, Washington, D. C. 20250.

OUTLINE OF SUMMARY

REPORT DOCUMENT

Outline of Summary Report Document

This Document will:

A. Include the Secretary of Agriculture's recommendations to the President.

B. Describe the basic role and responsibilities of the Forest Service and how they relate to the scope and requirements of the Resources Planning Act. A detailed description of Forest Service programs and their relationships, as required by section 2(a)(3) of the Act, will be included in the Program Document.

C. Discuss important policy considerations, laws, and regulations expected to significantly influence the use, ownership, and management of forest, range, and other associated lands as required by section 2(a)(4) of the Act. Policy discussions will also appear in the Assessment Document and will be a major part of the Program Document. This section of the Summary Report will highlight the major policy issues which the Forest Service suggests for consideration and review.

D. Explain, generally, the "resource systems approach" that will be used to organize discussions of the renewable resources included in the Assessment and the many program activities of the Forest Service. An elaboration of the use of resource systems will appear in the Program Document.

E. Highlight the major findings and conclusions of the Renewable Resources Assessment.

F. Highlight the recommendations of the Secretary for a Renewable Resources Program, describing the nature, scope, and implications of the program. This section will also briefly discuss the methodology used to develop program recommendations and alternative programs considered.

OUTLINE OF ASSESSMENT DOCUMENT

PREFACE

This assessment has been prepared in response to the provisions of Section 2 of the "Forest and Rangeland Renewable Resources Planning Act of 1974" which directs the Secretary of Agriculture to

> . . .prepare a Renewable Resource Assessment. . .the Assessment shall be prepared not later than December 31, 1975, and shall be updated during 1979 and each tenth year thereafter, and shall include but not be limited to:
>
> (1) an analysis of present and anticipated uses, demand for, and supply of the renewable resources of the forest, range and other associated lands with consideration of the international resource situation, and an emphasis of pertinent supply and demand and price relationship trends;
>
> (2) an inventory, based on information developed by the Forest Service and other Federal agencies, of present and potential renewable resources, and an evaluation of opportunities for improving their yield of tangible and intangible goods and services, . . .

In accordance with these provisions, this study provides an analysis of the present situation and the outlook for (1) outdoor recreation and wilderness, (2) fish and wildlife, (3) rangeland grazing, (4) timber, and (5) water. It includes statistical data on the ownership and condition of the Nation's 1.5 billion acres of forest and range lands; recent changes in forest and range resources; trends in the consumption and prices of major products; the prospective demand, supply, price outlook to 2020; and opportunities for increasing supplies of the products growing economically scarce. Data are also presented on international trade in forest and range products and the forest resources of important trading countries. The last section of the study discusses the kinds of data and scientific information needed to provide an adequate quantitative basis for future assessments of this kind.

The analyses of prospective economic scarcity are based primarily on projections of demands and supplies of renewable resource products. The projections of demand indicate the amount of the products likely to be consumed or used under a range of assumptions on population, economic activity, prices, and other determinants. The supply projections show the amount of the products that will be available for consumption or use if recent levels of management and utilization continue through the projection period.

A comparison of these projections provides a measure of future imbalances between demands and supplies, given the underlying assumptions, and an indication of the kinds and sizes of programs needed to bring about an improved resource situation. These comparisons, along with the current and historical statistical data, also provide a basis for appraising ongoing forestry and range programs and an indication of opportunities for economic development of forest and range resources.

In recent years, many and rapid changes have taken place in the use of American forests and ranges. Demands for all renewable resources have been rising rapidly, and there has been increasing emphasis on the management of lands for multiple purposes. But perhaps most important of all has been the growing concern about the forest and range environment and the need to preserve and enhance scenic and esthetic values.

In this study, an effort has been made to recognize the changes that have been taking place and likely impacts on future supplies of renewable resources. For example, multiple use management and the protection of the environment have been taken into account in projecting timber supplies for the National Forests. Projections for the private ownerships recognize the importance of nontimber objectives and that timber harvests might be limited. Specific allowances for the continuing transfer of commercial timberlands to other uses were made on all ownerships.

The analysis in this study covers the next four and a half decades. For the longer run, with growing population pressure on the environment and non-renewable stocks of ores and fuels, renewable resources could become of greater and greater importance. In appraising the needs for programs and the urgency for action, consideration must be given to the situation beyond the period covered in this report.

The concern about the environment, recent large increases in fossil fuel prices, and the ultimate depletion of stocks of energy materials and many ores emphasize in a striking way the long run role of renewable and expandable forest and range resources. Coal, petroleum, and natural gas, once used, are gone forever, and in time it seems probable that most ores can only be extracted at rising real costs. In contrast, with proper management, the output of products from forest and range lands can be increased and the higher levels of output maintained for future generations.

This section presents the general basic assumptions used in making the demand and supply projections for outdoor recreation, fish and wildlife, rangeland grazing, timber, and water presented below. In partial recognition of the uncertainty about future changes, three alternative assumptions are presented for population, economic activity and income. The alternatives cover the range over which growth in these major determinants could reasonably be expected to vary.

In making these assumptions, it is recognized that the outlook during the next few decades is much more dark and uncertain than it seemed a few years ago. The long run effects of large increases in the price of fossil fuels and other raw materials, world wide inflation and recession, and the unchecked growth in population and famine in many regions of the world are still unclear. However, it seems reasonable to expect that population, economic activity, and income in the United States--and most countries of the world--will continue to grow and do so much in line with recent trends.

Population Assumptions

Changes in population have an important effect on the demand for timber, forage, water, and the other renewable resources. They also influence the size of the labor force, a major determinant of the level of economic activity and related materials usage.

In the five decades between the early 1920's and the early 1970's, the population of the United States increased by about 100 million people, rising at an average annual rate of 1.3 percent per year (table 1). The most recent projections of the Bureau of the Census[1] indicate that population is likely to continue to grow fairly rapidly through the projection period. The Census Series E projection, for example, the medium projection of this study, shows population rising by another 86 million by 2020. In line with recent trends however, the annual rate of growth declines from about 1 percent in the late 1960's and early 1970's to 0.5 percent in the decade 2010-20.

The decline in the rate of population growth reflects Bureau of the Census assumptions about fertility rates.[2] There have been large fluctuations in fertility rates in recent decades but since the late 1950's, the trend has fallen sharply. The medium projection is based on an assumed fertility rate of 2.1--

[1] U.S. Department of Commerce, Bureau of the Census. Projections of the population of the United States, by age and sex: 1972 to 2020. Cur. Pop. Reps. Ser. P-25, No. 493, 26 p. 1972.

[2] Fertility rates indicate the number of births per 1000 women during their child bearing years. For a more detailed technical definition, see U.S. Department of Health, Education, and Welfare; Public Health Service, Natality Statistics Analysis, United States, 1965-67. National Center for Health Statistics, Ser. 21, No. 19, 39 p. 1970.

Table 1 -- Measures of population and economic growth, selected years 1920-74, with projections to 2020

Year	Population		Gross national product[1]		Per capita gross national product		Disposable personal income[1]		Per capita disposable personal income	
	Millions	Annual rate of increase	Billions of 1967 dollars	Annual rate of increase	1967 dollars	Annual rate of increase	Billions of 1967 dollars	Annual rate of increase	1967 dollars	Annual rate of increase
1920	106.5	--	160.5	--	1,507	--	--	--	--	--
1925	115.8	1.7	201.8	3.2	1,743	3.0	--	--	--	--
1930	123.2	1.2	215.8	1.4	1,752	.1	159.1	--	1,391	--
1935	127.4	.7	199.3	-1.6	1,564	-2.3	150.8	-1.1	1,184	-1.7
1940	132.6	.8	267.1	3.3	2,014	5.2	190.3	4.8	1,435	3.9
1945	140.5	1.2	417.6	3.5	2,972	8.1	262.8	6.7	1,870	5.4
1950	152.3	1.6	417.8	.1	2,743	-1.6	285.6	1.7	1,875	.1
1955	165.9	1.7	515.0	4.3	3,104	2.5	339.4	3.5	2,046	1.8
1960	180.7	1.7	573.4	2.2	3,173	.4	389.2	2.8	2,154	1.0
1965	194.3	1.5	726.4	4.8	3,739	3.3	497.7	5.0	2,562	3.5
1966	196.6	1.2	773.8	6.5	3,936	5.3	525.0	5.5	2,670	4.3
1967	198.7	1.1	793.9	2.6	3,995	1.5	546.3	4.0	2,749	3.0
1968	200.7	1.0	830.8	4.7	4,140	3.6	570.8	4.5	2,844	3.4
1969	202.7	1.0	853.2	2.7	4,209	1.7	587.6	2.9	2,899	1.9
1970	204.9	1.1	849.0	-.5	4,143	-1.5	610.0	3.8	2,977	2.7
1971	207.0	1.1	872.1	2.7	4,213	1.6	634.6	4.0	3,066	2.9
1972	208.8	.9	929.7	6.6	4,446	5.5	661.1	4.3	3,170	3.4
1973	210.4	.8	984.5	5.9	4,679	5.2	695.7	5.2	3,307	4.3
1974										
Low Projections										
1980	222	.9	1,240	3.5	5,610	2.7	870	3.6	3,920	2.8
1990	239	.7	1,670	3.0	6,990	2.2	1,170	3.0	4,900	2.3
2000	251	.5	2,250	3.0	8,960	2.5	1,570	3.0	6,260	2.5
2010	259	.3	3,020	3.0	11,640	2.6	2,110	3.0	8,150	2.7
2020	264	.2	3,870	2.5	14,610	2.3	2,710	2.5	10,270	2.3

Medium Projections										
1980	224	.9	1,300	4.0	5,830	3.1	910	4.1	4,060	3.2
1990	247	1.0	1,840	3.5	7,470	2.5	1,290	3.6	5,220	2.5
2000	264	.7	2,600	3.5	9,820	2.8	1,820	3.5	6,890	2.8
2010	282	.7	3,660	3.5	12,990	2.8	2,560	3.5	9,080	2.8
2020	298	.5	4,920	3.0	16,540	2.4	3,450	3.0	11,580	2.5
High Projections										
1980	229	1.1	1,370	4.5	5,990	3.4	960	4.6	4,190	3.5
1990	259	1.2	2,030	4.0	7,840	2.7	1,420	4.0	5,480	2.7
2000	286	1.0	3,000	4.0	10,490	3.0	2,100	4.0	7,340	3.0
2010	318	1.1	4,440	4.0	13,960	2.9	3,110	4.0	9,780	2.9
2020	351	1.0	6,270	3.5	17,840	2.5	4,390	3.5	12,510	2.5

[1]The 1970 trend level for the gross national product ($882 billion) and disposable personal income ($600 billion) were used as the base for calculating the projected values.

NOTE: Annual rates of increase are calculated for 5-year periods from 1920 through 1965, for 1-year periods 1965 through 1974, and for 10-year periods 1970 through 2020.

Sources: Population, U.S. Department of Commerce, Bureau of the Census. 1920-45--Population estimates and projections. Cur. Pop. Reps. Ser. P-25, No. 442, 1970; 1950-70--Estimates of the population of the United States to December 1, 1971. Cur. Pop. Reps. Ser. P-25, No. 474. 1972; 1971-72--Estimates of the population of the United States to January 1, 1973. Cur. Pop. Reps. Ser. P-25, No. 496, 1973. 1980-2000--Projections of the population of the United States, by age and sex (interim revisions): 1972 to 2020. Cur. Pop. Reps. Ser. P-25, No. 493, 1972.

Gross national product and per capita gross national product derived from data published in the following sources: 1920-25--U. S. Congress, Joint Committee on the Economic Report. Potential economic growth of the United States during the next decade. 83rd Cong., 2nd sess. 1954; 1930-74--Council of Economic Advisers. Economic report of the President. January 1975.

Disposable personal income and per capita disposable personal income derived from data published in the following source: 1930-74--Council of Economic Advisers. Economic report of the President. January 1975.

a level close to birth expectations of American women. The current rate is somewhat below this figure, but, of course, it could rise again in the future, as it has in the past.

Immigration accounts for a significant part of population growth and the estimates shown in table 1 include 400,000 net immigrants per year. There has been some decline in immigration recently. Some future reduction could result from mounting national concern about unemployment and population pressure on resources and the environment.

The age distribution of the population is important in estimating demands for recreation and housing--an important determinant of the demand for timber products. The Bureau of the Census projections of age classes associated with the population projections shown in table 1 have been used in this study. These projections indicate that an increasing proportion of the population will be in the older age classes--the classes that have the highest income levels and the largest demands for many goods and services.

As a part of the general assumptions on population, it was assumed that the labor force would grow more rapidly than the total population. This reflects the shift in population toward the older age classes and increasing participation in the labor force, chiefly on the part of women. Hours per year are expected to continue to drop fairly rapidly to a level 15 to 20 percent below the present by 2020.

Gross National Product Assumptions

In recent decades, changes in the consumption of water and many timber products have been closely associated with changes in the Nation's gross national product, i.e., the value of all the goods and services produced in the economy.

Between 1920 and 1970, the gross national product, measured in constant 1967 dollars, increased more than five times--rising at an average annual rate of 3.4 percent (table 1). Annual changes have fluctuated widely, from as much as +16.1 percent to -14.8 percent. The highest sustained rates of growth in gross national product occurred in the 1960's, when growth averaged 4.5 percent per year.

The wide fluctuations in annual rates of growth in the gross national product have reflected such factors as differences in the rates of change in labor force, rates of unemployment, hours worked per year, and productivity. These factors will presumably continue to cause fluctuations in gross national product in the years ahead. But for this study only trends in growth were considered, and projections were based on the following assumed rates of increase. The differences in assumed growth rates partly reflect the different

DECADE	ANNUAL RATES OF GROWTH		
	LOW	MEDIUM	HIGH
1970-79	3.5	4.0	4.5
1980-89	3.0	3.5	4.0
1990-99	3.0	3.5	4.0
2000-09	3.0	3.5	4.0
2010-19	2.5	3.0	3.5

assumptions on population growth and the related size of the labor force. Thus, the highest rate of growth in gross national product is associated with the high projection of population. However, most of the difference in projected rates is due to underlying assumptions on trends in productivity of the labor force.

The declines in the rates over the projection period reflect in part the assumptions on population growth. They also reflect the assumptions on the age distribution of the population, hours worked per year, and productivity.

The medium assumed rate of growth would result in a gross national product of $2,600 billion in 2000--some percent above that of 1974 (table 1). By 2020 this projection would reach $4,920 billion--some times that of 1974. The associated projection of per capita gross national product in 2020 rises to times the 1974 average.

Obviously, such projections rest on the assumption that the U. S. economy will continue to be oriented largely to production of economic goods, and that adequate supplies of raw materials and energy will be available to support such sustained growth over the projection period.

Both of these assumptions are being increasingly challenged,[4] and for the long run it is difficult to conceive of an indefinite continuation of high geometric growth rates. Also, concern for the environment could affect the types of goods produced, rates of productivity, and rates of increase in gross national product. For the projection period used in this study, however, it was assumed that the economic growth assumptions adopted provide an acceptable basis for evaluation of potential demands for renewable forest and range resources.

Disposable Personal Income

This measure of income available for spending or saving by the Nation's population has been another important determinant of the demand for certain products, such as recreation and various grades of paper and board. It also has a significant influence on household formation, size of dwellings and furniture consumption--all important determinants of the demand for lumber and other timber products.

Since 1929, disposable personal income has equaled about 70 percent of the gross national product. This historical and rather constant relationship was assumed to continue through the projection period (table 1).

The resulting estimates (medium level) show per capita disposable personal income nearly quadrupling by 2020. This means, of course, that the Nation is faced not only with the task of meeting the resource demands of an additional 86 million people, but the demands of 298 million people with a much higher standard of living.

[4]See, for example: Commoner, Barry. The closing circle. Alfred A. Knopf, 1971; Meadows, Donella H., Dennis L. Meadows, Jorgen Randus, and William W. Behrens. The limits of growth. Universe Books, New York. 1972.

Technological and Institutional Assumptions

Institutional and technological changes in the U. S. economy have substantially influenced use of renewable resources. Increasing urbanization, for example, has led to increased demand for some types of outdoor recreation, and has been an important source of the intensifying concern about the environment. It has also been the cause of important shifts in the use of raw materials including the partial displacement of timber products by steel, concrete, and other materials suitable for use in high rise buildings and other large urban structures.

Technological changes have also profoundly affected the demand for some resources. For example, recent developments in the pulp industry have substantially reduced the amount of water required to produce a ton of wood pulp. Innovations in the metals and plastics industries have resulted in the displacement of lumber and plywood in products such as furniture and containers. On the other hand, new technology has simultaneously led to large increases in the use of lumber in pallets, greater use of plywood in construction, and use of pulp and paper, plywood, hardboard, and particleboard in a wide assortment of end uses.

In the following sections of this study, projections of demand for renewable resources have been adjusted for specific technological and institutional changes that appear to be in prospect. The use of historical data as a base for projections implicitly assumes a continuing stream of technological and institutional changes such as have occurred in the past, as well as the continuation of recent trends in other variables such as educational levels, tastes, capital availability, and military activities.

Energy Assumptions

The recent and large increases in energy costs, and the prospects for continuing limitations on supplies, have created great concern about prospective impacts on economic growth and the demand for outdoor recreation, rangeland grazing and timber. In this study, it has been assumed. . .material being prepared. . .

Mineral Development Assumptions

Prospective development of the coal and oil shale resources of the West have raised questions about the prospective impacts on renewable forest and range resources. An analysis of the situation indicates. . .material being prepared. . .

Price Assumptions

For the purposes of this study, it was assumed that there would be no change in prices, or costs to consumers, relative to the general price level of water and wildlife. In recognition of the likelihood of increased costs to consumers of many types of outdoor recreation resulting from the rise in

transportation costs associated with the recent upward shift in energy prices, the medium projections of demand for certain types of outdoor recreation have been prepared under two cost assumptions. Because of past increases in the relative prices of stumpage and most timber products, and the high probability of continued increases, the medium projections of demand for, and supply of, timber have been developed using three alternative price assumptions. It was also recognized that increased fertilizer costs, associated with the jump in energy prices, could significantly affect the demand for rangeland grazing. The specific price and cost assumptions are described in the following section dealing with recreation, timber, and grazing.

Other Assumptions

In addition to the general assumptions outlined above, the projections of demands and supplies for the resources included in this study rest on a variety of other specified and implied assumptions. The most important of these, such as the assumptions on changes in commercial timberland and range areas, management intensities, the continuation of past relationships between variables, and constraints on the supplies of renewable resources associated with multiple-use management and the protection of the forest and range environment are described in the following sections.

I. SUMMARY

A. Projected growth in population, economic activity and income

B. Outdoor recreation and wilderness

1. The outdoor recreation resource situation
2. Projected demand/supply relationships
3. Opportunities for increasing and improving outdoor recreation resources

C. Fish and wildlife

1. The fish and wildlife resource situation
2. Projected demand/supply relationships
3. Opportunities for increasing supplies of fish and wildlife and improving habitats

D. Rangeland grazing

1. The range resource situation
2. Projected demand/supply relationships
3. Opportunities for increasing and improving range grazing

E. Timber

1. The timber resource situation
2. Projected demand/supply relationships
3. Opportunities for increasing and extending timber supplies

F. Water

1. The water resource situation
2. Projected demand/supply relationships
3. Opportunities for increasing and improving water supplies

G. Data and scientific information needed for the preparation of future assessments

II. THE FOREST AND RANGE LAND BASE

This section presents information on the area, location, ownership, characteristics, and major uses of the Nation's forest and range lands.

A. Introduction

B. Definition of forest lands

C. Definition of rangelands

D. Land inventory

1. Forest
2. Range

E. Geographic distribution

1. Forest lands
2. Rangelands

F. Ownership

1. Forest lands
2. Rangelands

G. Forest land characteristics

1. Noncommercial
2. Commercial
3. Major cover types

H. Rangeland characteristics

1. Major cover types

I. Major uses of forest and range land

1. Wildlife
2. Grazing
3. Outdoor recreation
4. Timber
5. Water
6. Wilderness
7. Other uses--parks, scenic rivers, historical and archeological sites, etc.
8. Minerals--impacts of development on forest and range lands

III. AN ASSESSMENT OF THE OUTDOOR RECREATION AND WILDERNESS SITUATION

This section presents information on (1) trends in the use of forest and range lands for developed site and dispersed outdoor recreation with projections of demand to 2020, (2) recent and prospective changes in supply of outdoor recreational facilities, and (3) opportunities for improving forest and range lands for outdoor recreation activities. It also includes a discussion of the use of forest and range land as wilderness.

A. Introduction

1. Participation in outdoor recreation

   a. As described in the 1972 National Outdoor Recreation Study (BOR)
   b. As described by National Forest System statistics by activities and sites (RIM)

2. Prospective demographic changes and potential effects on demand for outdoor recreation

3. Other influences on recreation activities

B. Developed site activities

1. The demand and supply situation for developed camping

   a. Recent trends in camping
   b. The characteristics of campers
   c. Projected demand for camping
   d. Supply of camping facilities
   e. Opportunities for providing camping facilities

2. The demand and supply situation for picnicking

   (Outline similar to camping)

3. The demand and supply situation for skiing

   (Outline similar to camping)

4. The demand and supply situation for visitor information

C. Dispersed area activities

1. The demand and supply situation for dispersed camping

   (Outline similar to camping)

2. The demand and supply situation for recreation vehicle travel

   (Outline similar to camping)

3. The demand and supply situation for trail uses including hiking and horseback riding

   (Outline similar to camping)

4. The demand and supply situation for boating and canoeing (tenative)

   (Outline similar to camping)

D. Wilderness and primitive areas

1. Use of wilderness areas

   a. Recreation
   b. Scientific and other uses

2. Recent trends in recreation use of wilderness areas

3. User characteristics

4. Present status

5. Areas under review

E. Specially designated areas

1. Scenic rivers
2. National trails
3. Other special areas

IV. AN ASSESSMENT OF THE FISH AND WILDLIFE SITUATION

This section presents information on (1) trends in wildlife and fish-oriented recreation activities on forest and range lands; (2) recent and prospective changes in supplies of fish and wildlife; and (3) opportunities for improving forest and range lands for fish and wildlife. This discussion covers four types of activities: hunting, fishing, trapping, and nonconsumptive uses.

A. Introduction

B. Consumptive activities

1. The demand and supply situation for big game, upland game and waterfowl

   a. Recent trends in hunting
   b. The characteristics of hunters
   c. Projected demand for hunting
   d. Supply of game

      (1) Trends in harvest
      (2) Population estimates

   e. Opportunities for improving habitats and increasing supplies of game

      (Discussion under each heading will cover big game, upland game, and waterfowl.)

2. The demand and supply situation for fish--coldwater, warmwater, and anadromous

   (Outline similar to hunting)

3. The demand and supply situation for trapping

   (Outline similar to hunting)

C. Nonconsumptive activities

1. The demand and supply situation for fish and wildlife enjoyment--nature walks, photographs, birdwatching, etc.

   a. Recent trends
   b. The characteristics of users
   c. Projected demand for fish and wildlife enjoyment
   d. Supply of fish and wildlife
   e. Opportunities for improving habitats and increasing supplies of fish and wildlife

      (Discussion under each heading will cover the major types of activities.)

2. The situation and outlook for endangered species

3. Opportunities for protecting and increasing endangered species

V. AN ASSESSMENT OF THE RANGELAND GRAZING SITUATION

The section presents (1) estimates of expected demand for rangeland as a source of livestock grazing, (2) a description of the Nation's rangeland resource base and its current use and productivity, and (3) a summary evaluation of opportunities for rangeland development and management.

A. Introduction

1. Traditional role of rangeland
2. International aspects

B. Demand for rangeland grazing

1. Issues and factors affecting USA range demands

    a. Economic outlook (agricultural prices)
    b. Political-social factors (agricultural policies, foreign trade, etc.)
    c. Changing price relationships (among alternative livestock feed and forage sources)
    d. World markets for grain, vegetable proteins, and meat
    e. Fossil fuel energy (trade-offs between feed and range)
    f. Scientific breakthroughs (animal, meat substitutes, fiber, range and agronomic technologies)
    g. Optional uses for range

2. Range demand concept (targets for management alternatives)

3. Demand for meat

    a. Overall trends in production and consumption
    b. Alternative sources of protein
    c. Preferences by kind and type of meat
    d. Import and export of meats

4. Demand for livestock feed and forages

    a. Feed and forage supplies and rations (by type of livestock production system)
    b. Impact of changes in demand for kind and type of meat on feed needs
    c. Import and export of feeds

5. Demand for grazing

    a. Distribution by kind of grazing (nonrange) and type of farming-ranching area
    b. Influences of changing production costs (fuel prices, fertilizer, labor, etc.)

6. Demand for range grazing

    a. Geographic area, season, and range type
    b. Major ownership (federal, non-federal)

7. Demand for national forest system grazing (as a function of supply potential)

8. Demand for nonlivestock grazing range outputs

C. The rangeland resource situation

1. Rangeland base (by ecosystem and ownership)

    a. Area
    b. Occurrence
    c. Present status

2. Current management

    a. Levels of management
    b. Interdependence of NFS, other Federal and non-Federal lands.

3. Resource outputs

    a. Outputs with direct economic value
    b. Other outputs with direct economic value
    c. Qualitative outputs with indirect economic value

D. Opportunities for rangeland development and management

1. Productivity under alternative management strategies
2. Opportunities for increasing and improving range grazing

VI. AN ASSESSMENT OF THE TIMBER SITUATION

This section presents information on: (1) Recent trends in consumption of timber products and projections of demand to 2020; (2) imports and exports of timber products and the timber demand and supply situation in the major importing and exporting countries; (3) recent changes in the area and condition of timber resources with projections of timber supplies to 2020; (4) comparisons of projected timber demands with supplies and the economic and social implications of prospective imbalances; and (5) opportunities for increasing and extending timber supplies.

A. The demand for timber

1. Trends in the major markets for lumber and panel products
2. Projected demand for lumber and panel products
3. The demand for pulpwood
4. The demand for miscellaneous roundwood products
5. The demand for fuelwood
6. Log imports and exports
7. Summary of demand for timber

B. World timber demands and supplies

1. World timber demands
2. World forest land and timber resources
3. Summary of prospective trends in U. S. trade in timber products

C. Commercial timberland and timber resources

1. Commercial timberland characteristics
2. Timber volumes
3. Timber growth
4. Mortality
5. Timber removals
6. Net growth in relation to removals

D. Projections of timber supplies with recent levels of management

1. Basic assumptions
2. Projected supplies by species group and section

E. Timber demand/supply relationships

1. Softwood timber demand/supply balances with recent levels of forest management
2. Hardwood timber demand/supply balances with recent levels of forest management
3. Economic implications of timber demand/supply imbalances

    a. Prices
    b. Timber industries

4. Social and environmental implications of timber demand/supply imbalances

F. Opportunities for increasing timber supplies through intensified management and improved utilization

1. General opportunities for management intensification
2. The importance of forest ownerships
3. Environmental factors relating to intensification of forest management
4. An example of potentials for increasing softwood sawtimber supplies
5. Potential increases in timber supplies from improved utilization
6. The potential contribution of research

VII. AN ASSESSMENT OF THE WATER SITUATION

This section presents an appraisal of (1) the current water situation, (2) a nationally consistent set of projections of water demands and supplies. which will identify existing and potential water supply problems at the national and regional level, and (3) opportunities for increasing water supplies and improving water quality. Much of this material will be abstracted from the "1974 Assessment of Water and Related Land Resources" being prepared under the overall direction of the U. S. Water Resources Council.

A. Basic assumptions

1. Agricultural and forestry production
2. Water quality (including assumptions about meeting requirements of P.L. 92-500)
3. Water use
4. Electric power
5. Flood damages
6. Navigation
7. Fish and wildlife
8. Recreation
9. Energy

B. The demand for water

1. Trends in water consumption by region and major uses

   a. Manufacturing
   b. Mineral (fuels, metallic, nonmetallic)
   c. Electric power
   d. Domestic use - central system
   e. Domestic noncentral system
   f. Agricultural (irrigation and livestock)
   g. Public lands (including Indian reservation)
   h. Fish hatcheries and wildlife refuges

2. Projected demands for water by region and major uses

   Same as above

C. The supply of water

1. Assumptions
2. Estimates of current water supplies by region (surface and groundwater)
3. Estimates of water imported and exported by region, as controlled by legal commitments

D. Water/demand supply relationships

1. Identifications of water short areas with prospective deficits
2. Identification of water surplus regions

3. Identification of other water problems

    a. Flood damage
    b. Navigation
    c. Fish and wildlife
    d. Land and water preservation needs

4. Opportunities for increasing water supplies and improving water quality by region

VIII. AN ASSESSMENT OF DATA AND SCIENTIFIC INFORMATION NEEDS

This section of the study discusses the kinds of data and scientific information needed to provide an adequate quantative basis for the 1979 and following assessments of renewable forest and range resources. The discussion is primarily concerned with the need for (1) inventories of resources, (2) surveys of the use of forest and range products, (3) measures of increased yields of products resulting from management, utilization, and research programs, and (4) research on the techniques of collecting data and preparing future assessments.

A. Inventories of renewable resources

1. Grazing

a. Current inventory data
b. Needed inventory data

2. Outdoor recreation

a. Current inventory data
b. Needed inventory data

3. Timber

a. Current inventory data
b. Needed inventory data

4. Water

a. Current inventory data
b. Needed inventory data

5. Wildlife

a. Current inventory data
b. Needed inventory data

B. Surveys of renewable resources

1. Grazing

a. Current grazing use surveys
b. Needed surveys

2. Outdoor recreation

a. Current recreation use surveys
b. Needed surveys

3. Timber

    a. Current timber products use surveys
    b. Needed surveys

4. Water

    a. Current water use surveys
    b. Needed surveys

5. Wildlife

    a. Current wildlife use surveys
    b. Needed surveys

6. Surveys of unique features of forest and range lands, i.e., archeological and historical sites, endangered species, etc.

7. Surveys of prices of forest and range products

8. Surveys of costs of management practices

C. Measures of responses to alternative programs for increasing supplies

1. Grazing
2. Outdoor recreation
3. Timber
4. Water
5. Wildlife

D. Techniques research on collecting data and improving assessments

1. Conducting renewable resource inventories
2. Conducting surveys of use of renewable resources
3. Projecting longrun trends in demands and supplies of renewable resources
4. Measuring responses to management
5. Measuring impacts of economic and sociological factors on demands and supplies
6. Measuring economic, social, and environmental impacts of economic resource scarcity
7. Impact interactions among renewable resources from changes in management practices

OUTLINE OF PROGRAM DOCUMENT

I. INTRODUCTION

The Introduction to the Renewable Resource Program will:

A. Explain the purpose of the Program document:

1. Referring to Section 3 of the Resources Planning Act;
2. Providing a brief background on the purpose of the Act.

B. Review the process by which the Program was developed:

1. Emphasizing that, by the intent of the Act, as well as by the very nature of the subject matter itself, the Program is subject to change and will, in fact, be changed periodically in the future as the environmental and economic situations themselves change;
2. Noting that the initial Program has certain limitations imposed by the working time and data available;
3. Explaining how elements of environmental analysis required by the National Environmental Protection Act have been incorporated into the Program itself;
4. Discussing the three stages of public involvement by which the public participates in developing the Program.

C. Outline the organization of the Program document in the form of a digest of each chapter.

II. Forest Service Role in Natural Resource Programs

This section will:

A. Explain the Forest Service role in the total realm of renewable resources, both domestic and international:

1. Reflecting the Service's statutory responsibilities for domestic resource management, particularly leadership in forest land and rangeland management, both on the National Forests and on other public and private land,
2. Elaborating upon the forest land stewardship ethic and the multiple-use concept that guide resource management.

B. Describe Forest Service Programs:

1. Reviewing the three arms of the Forest Service: National Forest System, State and Private Forestry, and Research;
2. Illustrating Human Resource Development Programs;
3. Discussing coordination with other Federal and State Agencies.

C. Emphasize the interrelation among Forest Service programs and responsibilities.

D. Display major laws, regulations, and national policies that influence the ownership, use, and management of forest, range, and other associated land.

III. THE PROGRAM FRAMEWORK - RESOURCE SYSTEMS

This section of the Program document will:

A. Explain why the Program is organized on the basis of "Resource Systems:"

1. Defining Resource Systems;
2. Showing relations of Resource Systems approach to "management by objectives" philosophy;
3. Pointing out the interrelations among -
   a. the resource systems,
   b. the three arms of Forest Service responsibility (National Forest System, State and Private Forestry, and Research).

B. Describe the individual Resource Systems including a mission statement for each:

Outdoor Recreation and Wilderness

The primary missions of the Outdoor Recreation and Wilderness system are to provide outdoor recreation opportunities and wilderness for the Nation. The system includes all activities necessary to (1) protect, administer, and develop the outdoor recreation opportunities on the National Forests so that they meet their appropriate share of the Nation's existing and anticipated demand consistent with other resource values, (2) protect and manage the scenic, cultural, and wilderness resources of the National Forests, (3) develop new knowledge to improve both the effectiveness of providing

and managing outdoor recreation oportunities and to preserving the wilderness resource, and (4) provide technical assistance and advice to other public and private forest landowners in developing forest-based recreational opportunities.

Wildlife and Fish Habitat

The primary mission of the Wildlife and Fish Habitat System is to provide wildlife and fish habitat, with special emphasis on threatened and endangered species. Management of wildlife and fish habitats is closely coordinated with the States because they have responsibility for wildlife and fish populations. This coordination includes maintaining close working relations among National Forests, and other Federal, State, and private land managers. The System includes all activities necessary to (1) protect, administer, and develop the National Forest wildlife and fish habitat, (2) assist non-Federal land managers through cooperative forestry programs, and (3) define environmental requirements of wildlife and fish and provide management alternatives through which these requirements can be attained.

Rangeland Grazing

The primary mission of the Rangeland Grazing System is to provide forage for domestic livestock grazing on forest land and rangeland. The system includes all those activities that bear directly upon management, protection, and development of the National Forest System for livestock grazing. It also includes

the cooperative aspects of State and private forestry associated with producing livestock on private forest range. Research provides the system with management alternatives that relate range productivity with other forest land and rangeland resources.

Timber Resource

The primary mission of the Timber Resource System is to grow and make available wood for the Nation on a continuing basis. Thus, the system includes those activities necessary to (1) protect, improve, grow, and harvest timber from forest land consistent with other resource values and (2) protect, process, and utilize wood and wood-related products. In addition to wood, the system produces other goods and services, either by design or incidentally.

Land and Water

The primary mission of the Land and Water System is to protect, conserve, and enhance the basic resources of air, soil, and water on forest land and rangeland. It provides the base on which the renewable resources live and grow. Activities include land-use planning, watershed and river basin planning and development, and management of mineral areas, in addition to the protection, conservation, and enhancement roles. On non-Federal land, activities are administered through cooperating States or through sister Agencies that have primary responsibility. Research is designed to assist in the management of both public and private lands.

Human and Community Development

The primary mission of the Human and Community Development System is to help people and communities to help themselves. The system includes activities that provide (1) youth development through working and learning experiences, (2) adult employment and training opportunities through various Federal manpower programs, (3) rural community planning and development information and services, and (4) technical forestry assistance for urban areas in the establishment, management, and protection of needed open space and the use of trees and woody shrubs.

C. Define terms used in the Resources Planning Act to provide uniformity of use and thus enhancing communication and understanding. Some terms are: inventory, needs, opportunities, program investments, capital activities, operational activities, Program, outputs, results, benefits, direct and indirect returns, etc. A representative definition in this section might be:

The Program - A renewable resource program for the Forest Service prepared by the Secretary of Agriculture and transmitted by him to the President.

D. Explain how the Program was developed:

1. Setting forth for each Resource System -

a. the findings of the assessment,

b. specific needs and opportunities,

c. alternative goals and associated policy options, and

d. system programs to meet each alternative goal;

2. Combining compatible System programs into Alternative Multiresource Programs -

   a. describing the alternative programs,

   b. comparing and displaying the results of the Alternative Programs (this section will serve in part as a statement of environmental impacts required by NEPA);

3. Recommending a Renewable Resources Program.

IV. OUTDOOR RECREATION AND WILDERNESS SYSTEM

This section will, for this system:

A. Summarize findings of the Assessment to set the stage for program development.

B. Discuss specific needs and opportunities: 1/

1. Inventorying these by investments in -

a. private programs,

b. public programs.

2. Dividing them into -

a. capital activities,

b. operational activities;

C. Develop alternative goals and associated policy options.

1. Summarizing those laws, regulations, and national policies that influence the ownership, use, and management of forest, range, and other associated land as related to Outdoor Recreation and Wilderness;

2. Arraying alternative goals for Outdoor Recreation and for Wilderness consistent with the findings of the Assessment and the laws, regulations, and national policies;

3. Describing Agency policy options for each goal that guided Program development and management of renewable resources, distinguishing those that -

a. define the Forest Service role and "share,"

b. identify the "means" to be employed to achieve the goals;

1/ This discussion will include the "backlogs" on the National Forest System called for in Section 8 of the Resources Planning Act.

4. Analyzing these options as they apply to the Outdoor Recreation and Wilderness System so as to provide a policy setting for Program development (existing reports and analyses will be reviewed and cited as appropriate. The selection of any policy option will be considered in terms of its ecological, economic, and social effects. The selected options for each goal must be compatible with the goal);

5. Stating the policy options selected for each goal and explaining the rationale for their selection (for those issues that cannot be resolved in the time available, procedures for analysis and resolution will be suggested. Needs for changes or additions in statutory authority or alternatives will be discussed as necessary);

6. Displaying alternative goals with associated policy options for the Outdoor Recreation and Wilderness System that have emerged from the above analysis to provide the guidance for Program development.

D. Describe for each period defined by the Resources Planning Act (the 4-year period beginning October 1, 1976, and each of the four decades), a system Program designed to meet each of the alternative goals displayed in C 6 above:

1. Including -

   a. planned level of activity,

   b. required funding,

   c. anticipated outputs;

2. Basing the development of these programs on -

   a. findings of the Assessment,

   b. inventory of needs and opportunities,

   c. policy options determined to be compatible with the goal. (C. above);

3. Indication (as possible) the ecological, economic, and social results (the complete picture on results will not be available until programs from each system are combined into Multiresource Program Alternatives. This section will serve, in part, as a statement of environmental impacts as required by NEPA).

V. WILDLIFE AND FISH AND HABITAT SYSTEM

Outline similar to IV for Outdoor Recreation and Wilderness System.

VI. RANGELAND GRAZING SYSTEM

Outline similar to IV for Outdoor Recreation and Wilderness System.

VII. TIMBER RESOURCE SYSTEM

Outline similar to IV for Outdoor Recreation and Wilderness System.

VIII. LAND AND WATER SYSTEM

Outline similar to IV for Outdoor Recreation and Wilderness System.

IX. HUMAN AND COMMUNITY DEVELOPMENT SYSTEM

Outline similar to IV for Outdoor Recreation and Wilderness System.

X. ALTERNATIVE MULTIRESOURCE PROGRAMS

This section will:

A. Describe in detail the process used to develop Alternative Multiresource Programs from the system programs set forth in section D of chapters IV through IX.

B. Describe each Alternative Multiresource Program:

1. Setting forth the rationale for selecting the particular system programs comprising each Alternative;
2. Showing by time period -
   a. the planned levels of activity,
   b. the required funding,
   c. the required personnel;
3. Discussing priorities for accomplishing "opportunities";
4. Identifying by time period -
   a. program outputs both commodity (i.e., cubic feet of timber and grazing by domestic animals) and non-commodity (i.e., wilderness and threatened and endangered species),
   b. returns to the Federal Government including direct revenue resulting from timber sales, recreation visits, etc., and indirect revenues resulting from taxes paid by businesses and individuals.

C. Analyze, compare, and display the various Alternatives:

1. Analyzing the specific factors associated with investments -
   a. program outputs (commodity and noncommodity outputs will be expressed and given equal weight in the analysis),

b. results anticipated (including ecological, economic, and social impacts of planned levels of activities such as timber harvesting, grazing, etc., on endangered species of wildlife, wilderness preservation, etc.).

This will be done in "such a manner that the anticipated costs can be directly compared with total related benefits and direct and indirect returns to the Federal Government," as required by section 3, item (2) of the Resources Planning Act. Costs are assumed to include Federal funding, other sources of funding, and opportunity costs.

2. Comparing the outputs and anticipated results for each Resource System by:

a. focusing on effects of individual activities;

b. comparing the activities under each Alternative;

c. classifying the effects of Program activities into four general categories (similar to those used in the Environmental Program for the Future) and describing how each category is affected:

Ecology (vegetation, soil, air, water, wildlife, fish, etc.)

National Economic Development (economic efficiency and output of goods and services)

Regional Development (income, numbers and types of jobs, population distribution, economic base, and stability)

Social well-being (real income distribution, life, health,

safety, education, culture, recreation, and emergency preparedness)
(A sample outline of this approach is attached.)

3. Displaying anticipated outputs and results in various forms
(narrative, charts, photographs, drawings, tables)
(In some cases, two or more variables will be involved--
results of activities over time; outputs and costs of different goals; outputs over time at different funding or manpower levels.)

XI. The Recommended Program

ATTACHMENT

QUALITATIVE AND QUANTITATIVE EFFECTS OF ALTERNATIVE PROGRAM ACTIVITIES

I. Effects of Outdoor Recreation and Wilderness System Activities on:

A. Ecology (including irretrievable commitment of resources) (examples)

1. How vegetation (including endangered plants) would be affected by such activities as:

a. developing ski areas 1/

b. managing fire

c. adding to the Wilderness System

d. expanding recreation use

2. How soil, air, and water would be affected by such activities as :

a. developing campgrounds

b. building roads

c. permitting use of recreational vehicles

d. providing opportunities for water recreation (boating, swimming, etc.)

e. using pesticides

3. How wildlife and fish habitat would be affected by such activities as:

a. expanding recreation use (on both land and water)

b. developing recreational facilities (roads, etc.)

1/ Under each activity, discussion will focus on the effect of each activity on the concerned factor or variable and then compare the degree of activity planned under each alternative.

4. How wilderness would be affected by such activities as:
   a. developing recreational facilities
   b. increasing or decreasing wilderness areas
   c. hiking, backpacking, etc.
   d. managing fire

B. National Economic Development

1. How budgets would be affected by such things as:
   a. recreation funding
   b. wilderness funding
2. How revenues from recreational activities would be affected by such things as:
   a. National Forest recreation
   b. public-service concessions and permits
   c. expanded private land recreational use
3. How short-term use and long-term productivity would be affected by such activities as:
   a. wilderness preservation
   b. intensive recreational use
4. How national employment would be affected by such things as:
   a. employment in the Federal Government
   b. employment in the private recreation industry

C. Regional Economic Development

1. How regional income would be affected by such things as:
   a. receipts from recreational use returned to States and counties

b. Federal expenditures for recreational activities

c. purchase of land for recreational use

d. income foregone due to preservation

e. expenditures by recreationists

2. How regional employment would be affected by such things as:

a. Federal employment in recreational activities

b. employment by recreation concessioners and permittees

3. How rural-urban migration would be affected by such things as:

a. shifts from developed to dispersed recreation

b. shifts of recreational emphasis among Regions

D. Social Well-being

1. How esthetics would be affected by such activities as:

a. development of ski areas

b. development of roads for recreational use

c. litter from recreational use

2. How heritage values would be affected by such things as:

a. development of roads for recreational use

b. publicizing historical and archaeological sites

3. How health and safety would be affected by such things as:

a. law enforcement in recreation areas

b. increased use of recreation and wilderness areas

c. health standards maintained at recreation facilities

II. Effects of Wildlife and Fish Habitat System Activities on:

(Similar to outline for Recreation and Wilderness; examples will include items such as animal population effects, habitat improvement methods, and preservation of key habitat on other uses.)

III. Effects of Rangeland Grazing System Activities on:

(Similar to outline for Recreation and Wilderness; examples will include items such as use of chemicals, range revegetation, and stocking level of animals.)

IV. Effects of Timber Resource System Activities on:

(Similar to outline for Recreation and Wilderness; examples will include items such as harvesting practices, roadbuilding, site preparation, herbicide use, and fertilization.)

V. Effects of Land and Water System Activities on:

(Similar to outline for Recreation and Wilderness; examples will include items such as restoration of erosion, minerals management, landownership adjustment, and wild and scenic rivers studies.)

VI. Effects of Human and Community Development System Activities on:

(Similar to outline for Recreation and Wilderness; examples will include items such as rural and youth employment, rural fire protection, and cooperative law enforcement.)

SUMMARY OF PUBLIC COMMENT ON ENVIRONMENTAL PROGRAM FOR THE FUTURE

Summary of Public Comment on EPFF

The following report is a brief overview of the 867 public responses received on the draft Environmental Program for the Future (EPFF), released by the Forest Service for public review in August of 1974. All public responses received through January 10, 1975, were analyzed and included in this report. Responses received after January 10 will also be analyzed and considered in the program review process.

This analysis summary of public comment is based on 867 documents (about 23,000 pages). The data is taken directly from the documents submitted by the public in response to the draft EPFF. The summary identifies number of responses received from each State. It identifies affiliation of respondents and respective percentages of total responses by group.

Seventy percent of the respondents identified their preference of alternative supply levels (low, moderate, high) on some or all of the 25 systems offered in the EPFF: Six resource systems, one support system, and eighteen research activities. Public responses relating directly to the alternative supply levels in the EPFF often identified reasons for their selection. Some identified suggested modifications with the alternative selected. In addition, a large number of comments related to a broad range of concerns on activities of the National Forest System, State and Private Forestry, and Forest Research. All comments were reviewed in their entirety and incorporated in the analysis.

The information received relating to EPFF is being used to frame the Renewable Resources Program. This will help develop alternative goals, schedule system program activities, and guide the development of alternative multi-resource programs.

The report on analysis of public comment, entitled "Public Comments on EPFF" is now being printed and will be available to the public in late February at Forest Service offices. Copies will be sent to all parties who submitted comments on the EPFF.

Number of Responses By States

States	No. of Responses	States	No. of Responses
Alabama	1	Nevada	8
Alaska	26	New Hampshire	8
Arizona	22	New Jersey	8
Arkansas	2	New Mexico	46
California	81	New York	23
Colorado	32	North Carolina	3
Connecticutt	7	North Dakota	6
Delaware	0	Ohio	9
Florida	6	Oklahoma	1
Georgia	7	Oregon	72
Hawaii	2	Pennsylvania	20
Idaho	40	Rhode Island	0
Illinois	13	South Carolina	1
Indiana	5	South Dakota	11
Iowa	4	Tennessee	6
Kansas	2	Texas	14
Kentucky	3	Utah	27
Louisiana	7	Vermont	3
Maine	5	Virginia	13
Maryland	4	Washington	52
Massachusetts	6	West Virginia	0
Michigan	21	Wisconsin	19
Minnesota	17	Wyoming	17
Mississippi	2	District of Columbia	23
Missouri	15	Puerto Rico	1
Montana	62	British Columbia	2
Nebraska	2	Unknown	80

Total Responses: 867 - Representing:

47 States
District of Columbia
Puerto Rico
British Columbia

Summary of Responses by Categories

	Agency	Faculty	Org/Group	Indiv	Unknown	Total	Percent of Total
Academic		56		8		64	7
Conserv/Environ/Rec.			54	63		117	14
Forest Service			4	233	76	313	36
Government	64			18		82	9
Other			6	226		232	27
Resource Industry			37	22		59	7
TOTAL	64	56	101	570	76	867	100

Alternative Preference Summary Tables by Systems

The following statistical tables are intended merely as an indication of the number of respondents and their general preference. They do not, in any way, indicate an analysis of overall public endorsement for or against any specific alternative. The hundreds of narrative comments made by respondents explaining the reasons behind their preferences, and comments on other aspects of the EPFF, will be used in development of each phase of the Resources Planning Act documents. A more comprehensive report on public comments will be made available prior to issuance of the alternative goals in March.

The following pages display the alternative preference tables (low, moderate, or high supply level) by respondent categories (Academic, Government, Forest Service, etc.) for the 25 systems of the EPFF.

Respondent preference on alternatives are identified as to whether they indicated blanket endorsement, overall modified endorsement (reduce or expand), or suggested changes in specific items within the alternative level selected.

Modified - reduce or expand an alternative (low, moderate, high) as stated in the EPFF

Blanket - endorsement of an alternative as stated in the EPFF

Itemized - items or activities within an alternative level changed by a respondent from those stated in the EPFF

The summary tables display the above information by individual respondent categories, all respondents, and all respondents less the Forest Service category.

Reading the Tables

The alphabetical listing on the next page identifies each of the 25 systems and areas dealt with in the EPFF. Each of the 25 is, in turn, identified by its corresponding letter on the statistical tables, pages 55 to 62.

Using the table on page 55, all respondent categories, the following examples may help in reading the tables:

Under A (Land and Water System) the table shows that 40 respondents gave blanket endorsement to the low level, 113 gave blanket endorsement at the moderate level, and 360 gave blanket endorsement at the high level. Under C (Recreation and Wilderness System) 82 gave blanket endorsement to the low level, 207 to the moderate level, and 167 to the high level.

By reading the table in this manner, the preference level can be determined for modified or blanket support for each of the 25 systems or areas by respondent category.

ALPHABETICAL GUIDE BY SYSTEMS

A. RESOURCE - Land and Water Systems

B. RESOURCE - Timber Resource System

C. RESOURCE - Recreation and Wilderness System

D. RESOURCE - Range Resource System

E. RESOURCE - Fish and Wildlife Habitat System

F. RESOURCE - Human and Community Development System

G. SUPPORT - Support Activities

H. RESEARCH - Improved Timber Utilization

I. RESEARCH - Intensive Timber Culture

J. RESEARCH - Insect and Disease Assessment

K. RESEARCH - Pest Management System

L. RESEARCH - Protection of Wood in Storage and Use

M. RESEARCH - Fire Prevention and Hazard Reduction

N. RESEARCH - Fire Detection and Suppression

O. RESEARCH - Recycling Sewage and Effluent Waters

P. RESEARCH - Reducing Impacts of Man's Activities

Q. RESEARCH - Minerals Development

R. RESEARCH - Environmental Amenities

S. RESEARCH - Recreation Management

T. RESEARCH - Urban Environments

U. RESEARCH - Resource Assessment

V. RESEARCH - Evaluation of Resource Mgmt. & Market Dev.

W. RESEARCH - Basic Hydrologic-Biologic Processes

X. RESEARCH - Fish, Wildlife, and Livestock Ecology

Y. RESEARCH - Timber-related Crops

ALL CATEGORIES
ALTERNATIVE PREFERENCE SUMMARY
BY SYSTEMS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
LOW																									
Modified	0	6	3	2	5	17	1	11	10	8	4	8	3	6	17	11	9	11	12	24	4	13	5	8	17
Blanket	40	107	82	121	83	84	41	121	116	51	43	90	88	84	93	58	67	107	106	109	78	145	86	76	164
Total	40	113	85	123	88	101	42	132	126	59	47	98	91	90	110	69	76	118	118	133	82	158	91	84	181
MODERATE																									
Modified	2	4	6	1	0	5	0	0	1	0	1	1	2	0	3	1	0	4	1	1	1	0	1	2	4
Blanket	113	161	207	158	150	159	152	132	158	186	144	128	167	192	108	147	227	127	154	146	188	170	137	156	125
Total	115	165	213	159	150	164	152	132	159	186	145	129	169	192	111	148	227	131	155	147	189	170	138	158	129
HIGH																									
Modified	6	8	5	5	7	11	3	5	3	2	2	2	2	0	2	0	2	4	3	1	2	3	2	4	1
Blanket	360	313	167	204	338	248	210	299	255	296	333	287	275	237	302	320	229	266	249	237	234	163	288	272	181
Total	366	321	172	209	345	259	213	304	258	298	335	289	277	237	304	320	231	270	252	238	236	166	290	276	182
BLANKET & MODIFIED	521	599	470	491	583	524	407	568	543	543	527	516	537	519	525	537	534	519	525	518	507	494	519	518	492
ITEMIZED	86	122	142	86	19	69	118	4	5	2	8	4	4	2	9	3	10	14	12	9	7	7	2	23	10
TOTAL	607	721	612	577	602	593	525	572	548	545	535	520	541	521	534	540	544	533	537	527	514	501	521	541	502
DID NOT RESPOND TO SYSTEM	260	146	255	290	265	274	342	295	319	322	332	347	326	346	333	327	323	334	330	340	353	366	346	326	365

ALL CATEGORIES OTHER THAN FOREST SERVICE
ALTERNATIVE PREFERENCE SUMMARY
BY SYSTEMS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
LOW																									
Modified	0	3	3	1	2	8	1	9	7	5	3	4	2	5	12	8	7	9	8	15	3	9	4	6	11
Blanket	30	83	64	85	53	53	29	95	87	31	29	58	62	60	59	34	49	54	70	62	55	99	52	47	117
Total	30	86	67	86	55	61	30	104	94	36	32	62	64	65	71	42	56	63	78	77	58	108	56	53	128
MODERATE																									
Modified	1	1	3	0	0	4	0	0	1	0	1	1	2	0	1	0	0	3	0	1	1	0	1	1	3
Blanket	60	85	106	87	83	93	95	80	90	104	81	71	94	105	53	80	152	72	86	86	110	99	81	89	64
Total	61	86	109	87	83	97	95	80	91	104	82	72	96	105	54	80	152	75	86	87	111	99	82	90	67
HIGH																									
Modified	5	8	4	5	5	10	1	5	3	2	1	2	2	0	1	0	2	4	2	1	1	3	1	4	1
Blanket	233	231	101	116	229	166	117	171	152	209	223	202	182	166	212	226	134	198	176	166	155	109	194	186	123
Total	238	239	105	121	234	176	118	176	155	211	224	204	184	166	213	226	136	202	178	167	156	112	194	190	124
BLANKET & MODIFIED	329	411	281	284	372	334	243	360	340	351	338	338	344	336	338	348	344	340	342	331	325	319	332	333	124
ITEMIZED	59	80	103	60	12	42	82	4	5	2	8	4	2	1	8	3	8	11	7	6	7	5	1	11	8
TOTAL	388	491	384	344	384	376	325	364	345	353	346	342	346	337	346	351	352	351	349	337	332	324	333	344	132
DID NOT RESPOND TO SYSTEM	166	63	170	210	170	178	229	190	209	201	208	212	208	217	208	203	202	203	205	217	222	230	221	210	422

ACADEMIC CATEGORY
ALTERNATIVE PREFERENCE SUMMARY
BY SYSTEMS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
LOW																									
Modified	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	2	1	1	0	2	0	0	1	1	1
Blanket	3	6	8	5	3	4	1	9	11	2	2	6	4	6	6	0	3	4	7	3	6	9	3	2	9
Total	3	6	8	5	3	4	1	9	11	3	2	6	4	6	8	2	4	5	7	5	6	9	4	3	10
MODERATE																									
Modified	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Blanket	5	12	12	9	8	12	10	7	8	12	4	6	12	10	2	9	19	6	9	10	18	13	5	8	9
Total	5	13	13	9	8	12	10	7	8	12	4	6	13	10	2	9	19	6	9	10	18	13	5	8	9
HIGH																									
Modified	1	1	1	0	1	3	1	2	1	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0
Blanket	26	16	11	17	32	14	14	15	14	20	27	21	18	15	24	24	11	22	17	12	11	7	22	21	10
Total	27	17	12	17	33	17	15	17	15	20	28	21	19	15	24	24	11	22	17	12	11	8	23	21	10
ITEMIZED	3	7	11	5	1	7	8	1	0	0	0	0	0	0	0	0	1	2	1	5	1	0	1	1	1

CONSERVATION/ENVIRONMENTAL/RECREATION CATEGORY
ALTERNATIVE PREFERENCE SUMMARY
BY SYSTEMS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
LOW																									
Modified	0	2	0	0	0	2	0	2	2	1	1	1	2	2	1	0	1	5	1	4	0	4	1	1	7
Blanket	6	29	10	26	6	4	8	27	21	8	6	9	16	17	14	5	11	5	6	17	18	24	14	9	26
Total	6	31	10	26	6	6	8	29	23	9	7	10	18	19	15	5	12	10	7	21	18	28	15	10	33
MODERATE																									
Modified	1	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0
Blanket	10	26	17	14	11	23	23	15	18	20	19	12	15	18	7	17	41	10	22	15	24	17	16	19	8
Total	11	26	18	14	11	23	23	15	19	20	19	12	15	18	8	17	41	11	22	15	25	17	17	19	8
HIGH																									
Modified	2	0	0	1	2	3	0	1	1	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0
Blanket	52	11	22	19	61	44	28	35	35	53	49	57	44	42	53	54	28	57	47	45	30	27	49	48	33
Total	54	11	22	20	63	47	28	36	36	53	49	57	45	42	54	54	29	57	48	45	30	27	49	48	33
ITEMIZED	11	14	27	17	2	11	12	0	1	2	3	1	2	0	5	2	2	3	3	1	4	2	0	10	3

GOVERNMENT CATEGORY

ALTERNATIVE PREFERENCE SUMMARY
BY SYSTEMS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
LOW																									
Modified	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	2	0	0	2	0	0	0	0	0
Blanket	4	8	12	11	10	13	1	6	7	1	2	4	5	7	5	6	9	10	15	13	4	12	11	7	14
Total	4	8	12	11	10	13	1	6	7	2	2	4	5	7	7	7	11	10	15	15	4	12	11	7	14
MODERATE																									
Modified	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0
Blanket	14	16	27	19	18	13	21	19	18	22	9	16	18	18	14	18	15	15	13	12	17	18	14	18	16
Total	14	16	28	19	18	13	21	19	18	22	9	17	19	18	14	18	15	16	13	13	17	18	14	18	16
HIGH																									
Modified	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Blanket	34	28	13	17	26	26	14	29	24	27	39	25	26	24	29	27	30	24	26	24	31	21	26	23	18
Total	34	29	13	17	26	26	14	29	24	27	39	25	26	24	29	27	30	24	26	24	31	21	26	24	18
ITEMIZED	8	6	5	2	2	2	9	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	1

FOREST SERVICE CATEGORY

ALTERNATIVE PREFERENCE SUMMARY
BY SYSTEMS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
LOW																									
Modified	0	3	0	1	3	9	0	2	3	3	1	4	1	1	5	3	2	2	4	9	1	4	1	2	6
Blanket	10	24	18	36	30	31	12	26	29	20	14	32	26	24	34	24	18	53	36	47	23	46	34	29	47
Total	10	27	18	37	33	40	12	28	32	23	15	36	27	25	39	27	20	55	40	56	24	50	35	31	53
MODERATE																									
Modified	1	3	3	1	0	1	0	0	0	0	0	0	0	0	2	1	0	1	1	0	0	0	0	1	1
Blanket	53	76	101	71	67	66	57	52	68	82	63	57	73	87	55	67	75	55	68	60	78	71	56	67	61
Total	54	79	104	72	67	67	57	52	68	82	63	57	73	87	57	68	75	56	69	60	78	71	56	67	62
HIGH																									
Modified	1	0	1	0	2	1	2	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	1	0	0
Blanket	127	82	66	88	109	82	93	128	103	87	110	85	93	71	90	94	95	68	73	71	79	54	94	86	58
Total	128	82	67	88	111	83	95	128	103	87	111	85	93	71	91	94	95	68	74	71	80	54	95	86	58
ITEMIZED	27	42	39	26	7	27	36	0	0	0	0	0	2	1	1	0	2	3	5	3	0	2	1	2	3

RESOURCE INDUSTRY CATEGORY

ALTERNATIVE PREFERENCE SUMMARY
BY SYSTEMS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
LOW																									
Modified	0	0	1	0	0	3	1	0	0	0	0	1	0	2	3	4	3	1	4	6	1	2	1	3	2
Blanket	7	3	10	9	13	12	4	9	6	1	3	11	10	7	13	10	2	15	12	8	5	7	10	12	9
Total	7	3	11	9	13	15	5	9	6	1	3	12	10	9	16	14	5	16	16	14	6	9	11	15	11
MODERATE																									
Modified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blanket	11	3	16	9	11	7	11	7	4	6	4	7	9	7	7	10	11	7	7	9	6	11	9	4	4
Total	11	3	16	9	11	7	11	7	4	6	4	7	9	7	7	10	11	7	7	9	6	11	9	4	4
HIGH																									
Modified	0	2	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blanket	13	24	6	13	10	7	8	18	22	25	22	15	15	17	8	8	15	7	7	7	19	10	12	12	13
Total	13	26	6	14	10	7	8	19	22	26	22	15	15	17	8	8	15	7	7	7	19	10	12	12	13
ITEMIZED	7	7	4	2	3	6	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0

OTHER CATEGORY

ALTERNATIVE PREFERENCE SUMMARY
BY SYSTEMS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
LOW																									
Modified	0	1	2	1	2	3	0	7	5	2	2	2	0	1	4	1	0	2	3	1	2	3	1	1	1
Blanket	10	37	24	34	21	20	15	44	42	19	16	28	27	23	21	13	24	20	30	21	22	47	14	17	59
Total	10	38	26	35	23	23	15	51	47	21	18	30	27	24	25	14	24	22	33	22	24	50	15	18	60
MODERATE																									
Modified	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	3
Blanket	20	28	34	36	35	46	30	32	42	44	45	30	40	52	23	26	66	34	35	40	45	40	37	40	27
Total	20	28	34	36	35	46	30	32	42	44	46	30	40	52	23	26	66	35	35	40	45	40	37	41	30
HIGH																									
Modified	2	4	3	3	2	4	0	1	1	1	0	2	0	0	0	0	1	4	1	1	1	2	0	3	1
Blanket	108	152	49	50	100	75	53	74	57	84	86	84	79	68	98	113	50	88	79	78	64	44	85	82	49
Total	110	156	52	53	102	79	53	75	58	85	86	86	79	68	98	113	51	92	80	79	65	46	85	85	50
ITEMIZED	30	46	56	34	4	16	43	3	4	0	3	3	0	1	2	1	5	6	3	0	2	2	0	7	3